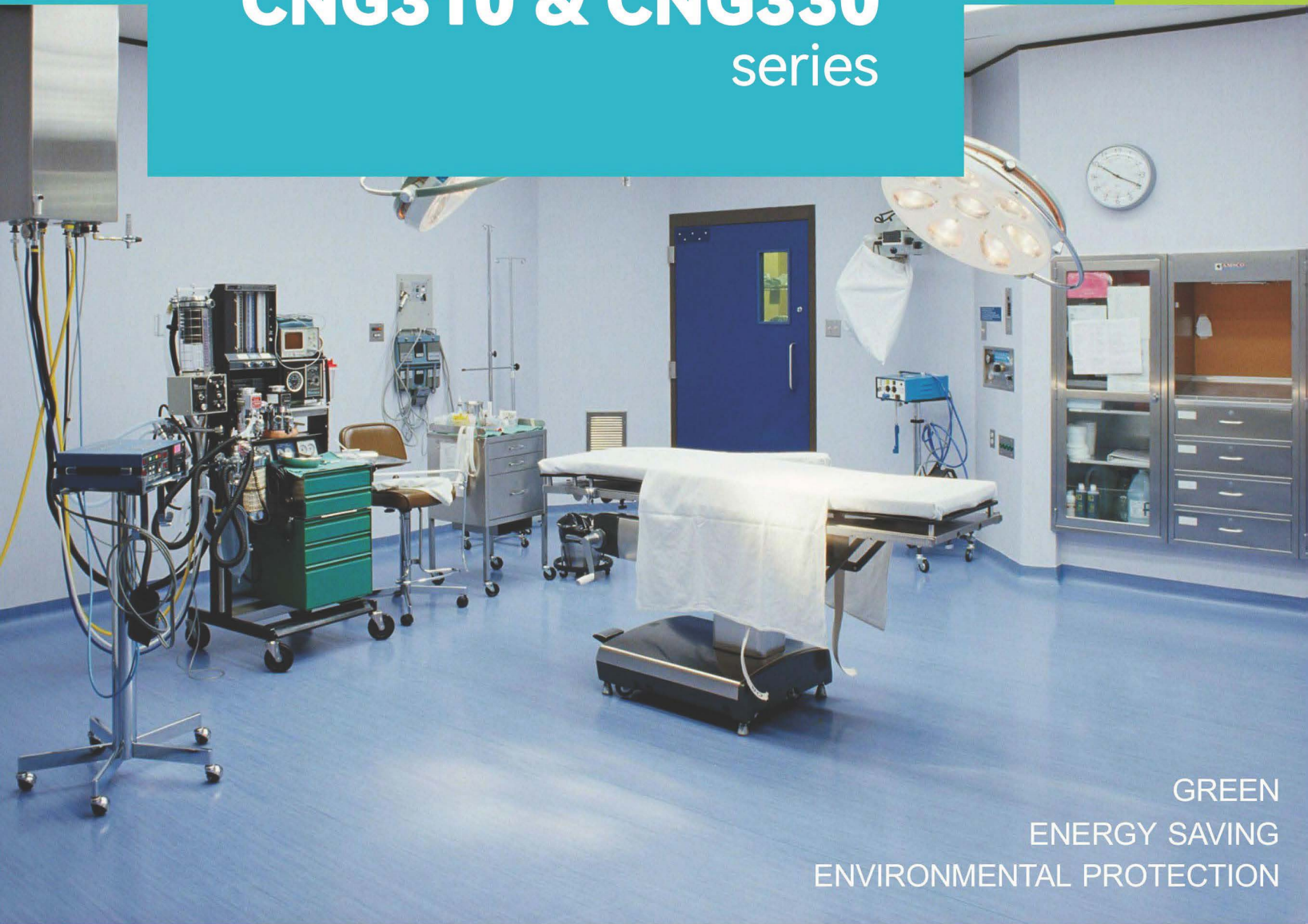


Low Frequency Online UPS 10-600KVA  
**CNG310 & CNG330**  
series



GREEN  
ENERGY SAVING  
ENVIRONMENTAL PROTECTION


SHENZHEN  
SINOWATT ELECTRONIC CO., LTD.

0755-26000000

# CNG310 & CNG330 Series

Low Frequency Online UPS 10-600KVA

Data Center    Local Area    Industrial Processes    Servers



**Product Snapshot**

Model: CNG310 10-100KVA(3Ph/1Ph)  
Model: CNG330 10-600KVA(3Ph/3Ph)  
Nominal Input Voltage: 380/400/415VAC  
Output Power Factor: 0.9  
Parallel: Maximum 6 PCS UPS  
Battery can be shared in parallel mode



## High intelligence and reliable power supply:

Due to its outstanding mechanical and electrical design, CNG310/330 series UPS provides maximum protection for vital mission-critical networks, security applications (electro-medical) and industrial applications.

The load is powered continuously by the inverter with a filtered, stabilized and regulated sinewave supply. The input and output EMI filters considerably increase the immunity of the load to mains disturbances and surges.

The CNG310/CNG330 uses on-line double conversion technology (VFI) with isolation transformer on the inverter output.

The CNG310/CNG330 is supplied with Watch & Save 3000 software as standard and can be remotely monitored using the Power NetGuard system from anywhere in the world. Additional battery extension packs allow the standard battery runtime to be extended up to several hours.



## APPLICATION:

Servers  
Local area Network(LAN)  
Data centers  
Telecommunications  
Electro-medical equipment

## MAXIMUM BATTERY CARE:

- Battery deep discharge protection;
- Temperature compensating charger;
- Built-in automatic and manual battery test feature.

## MINIMUM IMPACT ON SUPPLIES EASY SOURCE:

Input current distortion <4% for the CNG310/CNG330 with filter with sinusoidal absorption to remove the risk of resonance with other input supply users or phase shift capacitor sets. The absorbed current distortion is independent of input supply parameters such as impedance. This enable CNG310/CNG330 to deliver maximum performance levels regardless of the installation environment. With these input features CNG310/CNG330 can achieve significant savings in terms of sizing and power supply courcesiso- ation transformers and generators over less sophisticated power systems.

## SIMPLE TO INSTALL:

- Capability to install the UPS into any distribution system(neutral not required on rectifier input);
- Capability to separate the rectifier/bypass power networks and to power them from two separate sources, without Galvanic isolation (Necessary on UPS without an output transformer).

## HIGH RELIABILITY:

- Extremely high short-circuit current to ensure compatibility with the most difficult transformer applications (lighting, drives and industrial processes) and an isolation transformer on the inverter output;
- Full microprocessor control with no-break static and manual bypasses;
- IGBT technology.

## OTHER CHARACTERISTICS:

- 0.9 power factor makes CNG310/CNG330 suitable for powering ICT and Industrial loads;
- High level diagnostics: event log with 128 messages, states, measurements and alarms-available from the built-in LCD with several languages;
- BACK FEED protection: to avoid energy feeding back into the mains supply cause a fault occur.

## MAXIMUM RELIABILITY AND AVAILABILITY:

Connect up to 6 units in parallel or N+1 redundancy, even of different power ratings. The UPS continue to work in parallel even if one of the interconnecting communication cables is disconnected(CLOSEDLOOP).

## PRODUCTION & APPLICATION:





## LOW CONSUMPTION LEVELS:

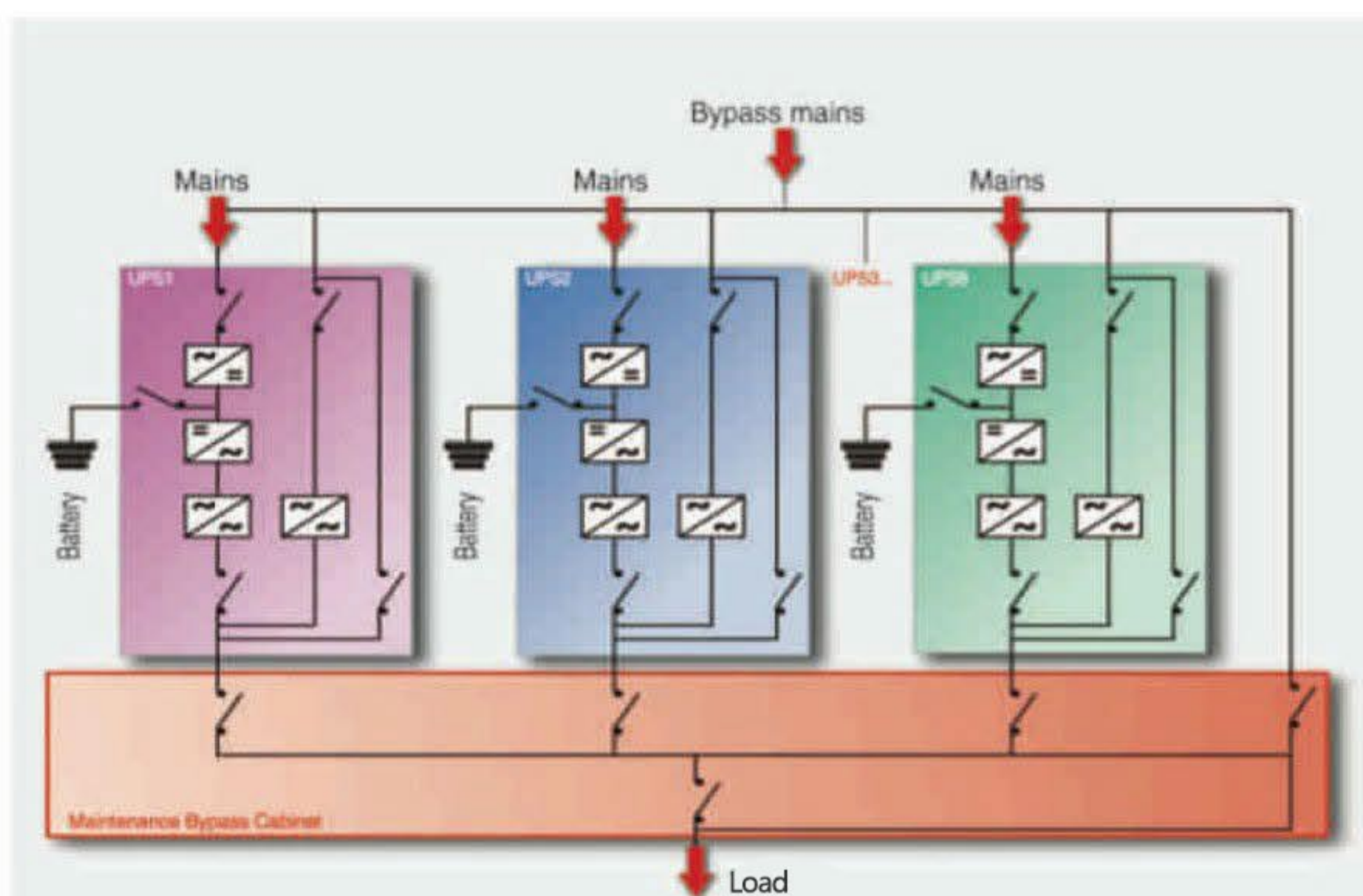
CNG310/CNG330 can achieve efficiencies >98% thanks to selectable Economy Mode which can be used in stable electrical environments to provide power supply continuity when the mains fail.

## ADVANCE COMMUNICATION:

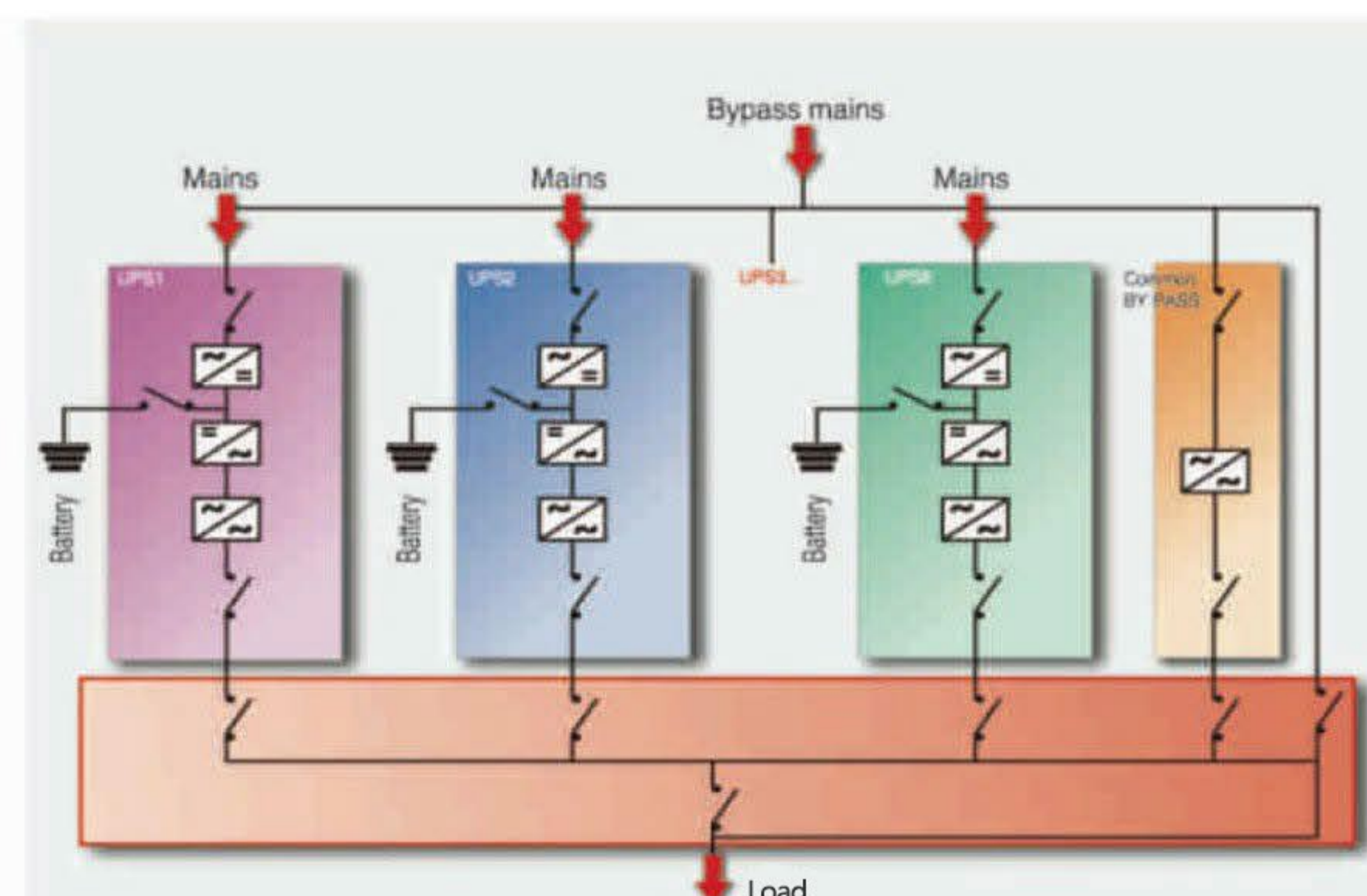
- Compatible with TeleNetGuard for remote maintenance;
- Advanced, multi-platform communication for all operation systems and network environments: Watch & Save 3000 monitoring and shut-down software included, with SNMP agent, for Windows 2008, Vista, 2003, XP; Mac OS X, Linux, Novell and most popular Unix operating systems;
- The UPS is supplied with a cable for direct connection to the PC (Plug and Play)
- RS232 double Serial port Installation slot for an Emergency Power Off (EPO) interface to allow the UPS to be switched off remotely in an emergency
- Generator interface: enables desynchronisation of the UPS output from a generator supply which may be subject to phase and frequency variations. The interface also enables more economic use of the battery charge..

## EXPANDABILITY :

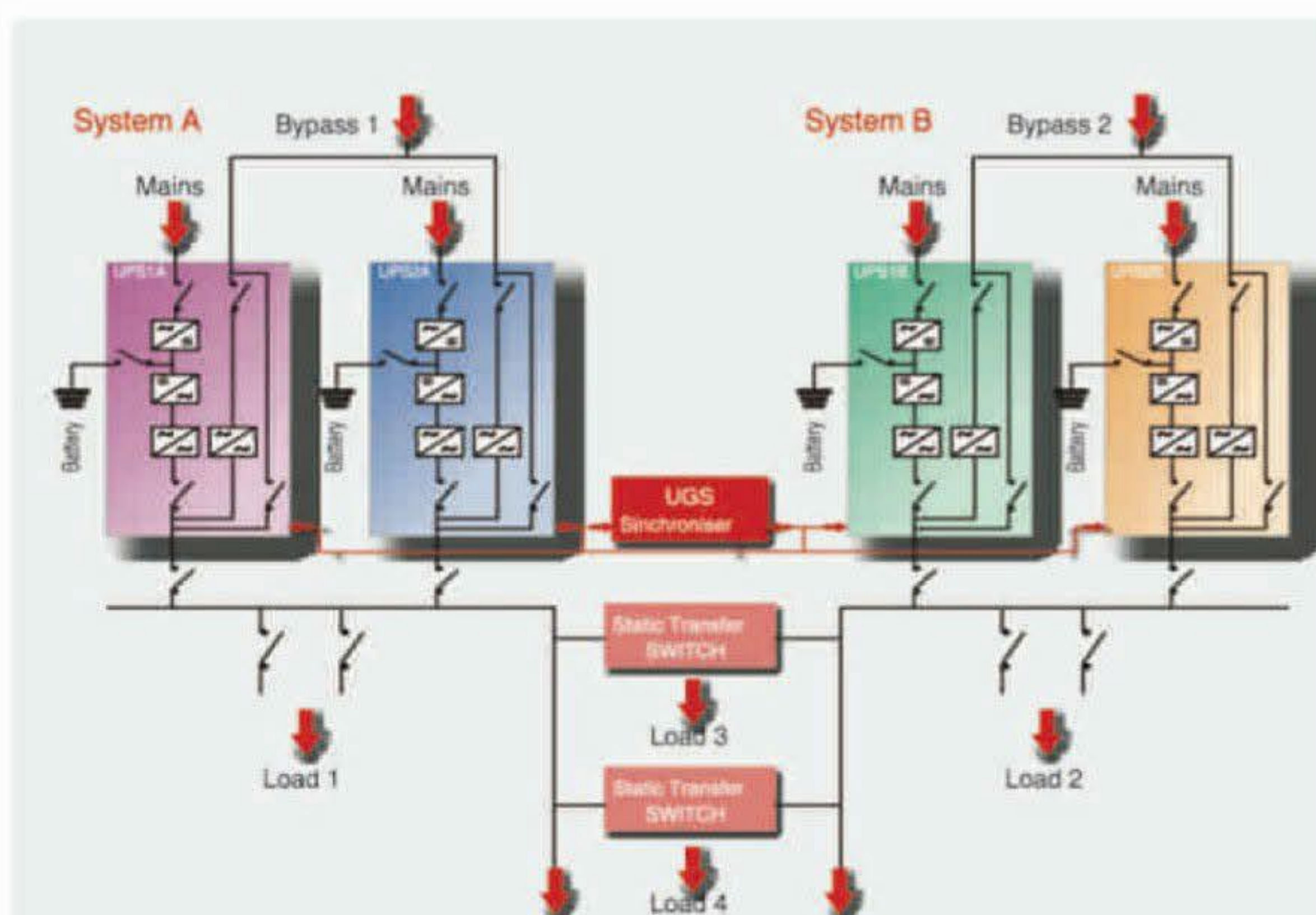
- The units can be connected in parallel up to 6 units to increase power availability or redundancy. The single module or the system can be expanded any time to suit power requirements without influencing the initial investment.
- Thanks to the peculiarity of the “Hot System Expansion” feature, the additional unit can be connected in parallel while the other units are on-line and supplying regular power to the load. The new UPS is on-line and will be set up automatically.



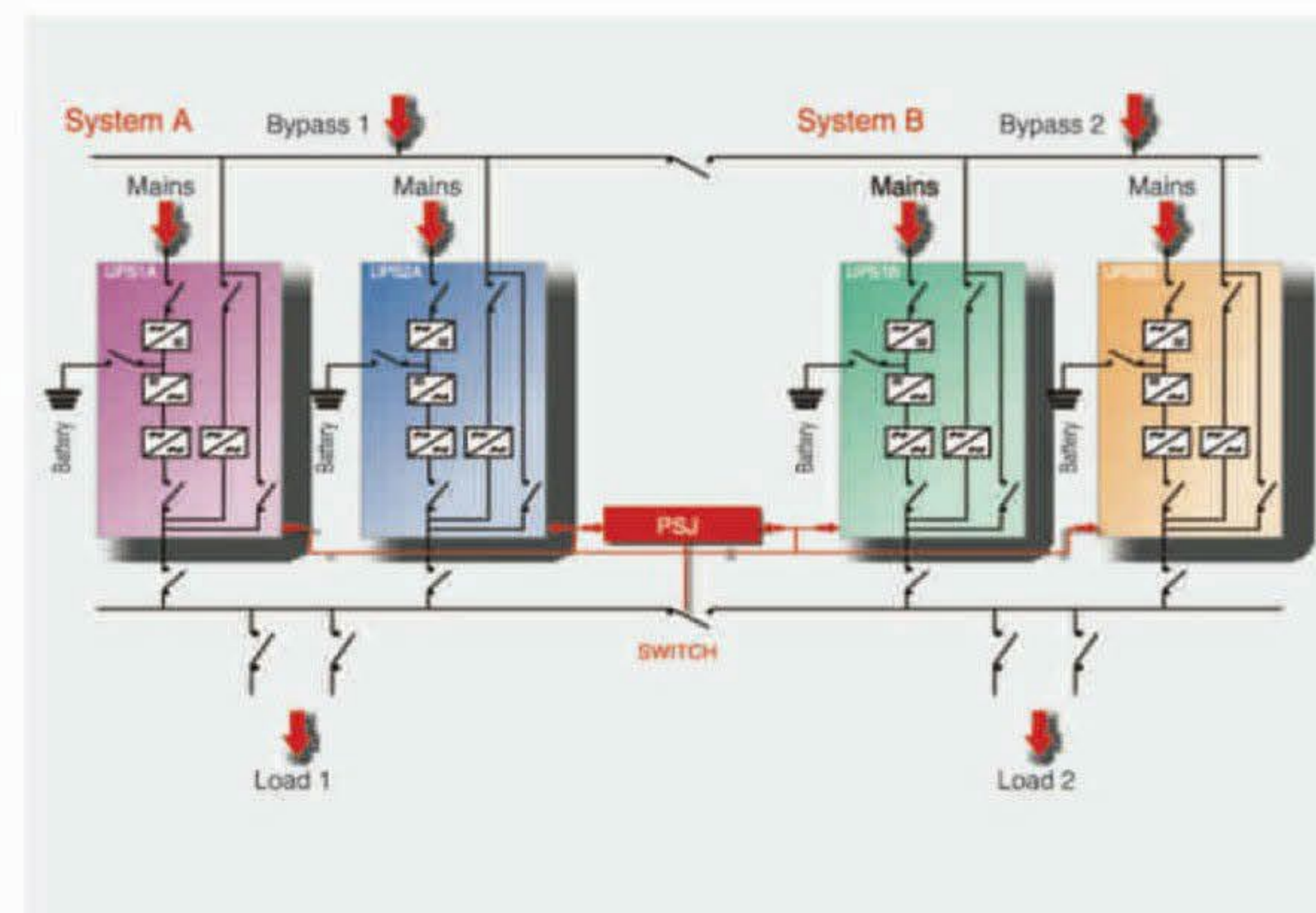
Parallel configuration of up to 6 units with distributed bypass  
Parallel architecture which guarantees the redundancy of the power source.  
+ Flexibility and modularity



Parallel configuration of up to 6 units with common bypass  
Parallel architecture which guarantees the redundancy of the power source.  
with autonomous bypass management.  
+ Selectivity downstream faults in bypass mode.



Dynamic dual bus configuration  
Solution which ensures redundancy until the distribution of the power supply to the loads + Downstream fault discrimination



Dual bus system configuration  
Solution which guarantees the redundancy of the power supply even during maintenance + High levels of availability and redundancy



## CNG310 Series Technical Specifications

CNG310 10-100KVA									
Model	10KVA	15KVA	20KVA	30KVA	40KVA	60KVA	80KVA	100KVA	
Capacity	9KW	13.5KW	18KW	27KW	36KW	54KW	72KW	90KW	
<b>Input</b>									
Rated Voltage	380/400/415 Vac ththree-phase								
Voltage Range	±20%								
Frequency Range	45-65Hz								
Range(Hz)	50±5%(±10%)Bypass synchronization tracking								
Rectifying Pulse Number	6 pulse rectification								
Phase System	3φ4W +PE(Three phase five wire system)								
Battery Voltage(VDC)	384								
Battery Quantity(Section)	Standard with 32(30~34, can be set through the LCD panel)								
<b>Output</b>									
Power Factor	0.9								
Voltage(V)	L-N: 220±1%								
Voltage Regulation	<1%(online and battery mode) at 100% linear load,<2% allow 100% imbalance								
Frequency(Hz)	Normal power, tracking the frequency of power, Frid abnormal.50±0.2%								
Transfer Time(ms)	0								
Recovery Time	Dynamic load voltage transient <5%, recovery within 5ms								
Waveform Distortion	Linear load THD2%: Nonlinear load THD 5%								
Overload Capacity	125% full load for 10 minutes, maintain 150% full load for 1 minute and then switch to bypass power supply, after reducing the load can automatically restore the inverter								
Crest Factor	3:1								
<b>System</b>									
Efficiency (normal mode)	94% at 100% load, 92% at 50% load								
Communication Function	Provides dry contract communication and RS232/RS485, Optional SNMP option to achieve intelligent monitoring of UPS								
Panel Display	LED displays working status and fault indication: LCD displays three-phase input voltage, input frequency, output voltage, load, battery voltage, battery charge and discharge current, etc								
Display	LCD 7' touch screen display								
The Audio Noise(dB)	<65(within 1 meter)								
Alarm Function	Battery low voltage, abnormal power supply, overload, UPS failure, over temperature protection								
Protection	Input over voltage, battery under voltage, overload, short circuit, over temperature protection								
Cooling Way	Forced cooling								
Operating Temperature(°C)	-10~35 without de-rating								
Humidity	0~95%, non-condensing								
Max Altitude	Rated power at 1000m,(increase 100m and decrease by -1%), maximum 4000m								
Size (W*D*H)(mm)	540*657*1132				555*725*1290			800*745*1700	
Net Weight(KG)	173	199	211	254	306	385	390	665	
Gross Weight(KG)	196	222	233	276	329	415	419	724	

STANDA D: Conform to GB/IEC regulation: EMC: CB7260. 2/IEC62040-2 -GB/17626.2~5/IEC61000-4-2~5 SAFETY: GB4943

Note: Product specifications are subject to change without further notice.





## CNG330 Series Technical Specifications

CNG330 10-600KVA																		
Model	10KVA	20KVA	30KVA	40KVA	60KVA	80KVA	100KVA	120KVA	160KVA	200KVA	250KVA	300KVA	400KVA	500KVA	600KVA			
Capacity	9KW	18KW	27KW	36KW	54KW	72KW	90KW	108KW	144KW	180KW	225KW	270KW	360KW	450KW	540KW			
<b>Input</b>																		
Rated Voltage	400 Vac ththree-phase																	
Voltage Range	380/400/415VAC (±25%, Can be set through the LCD panel)																	
Frequency Range	40-70Hz (Automatically select synchronization range according to grid frequency)																	
Range(Hz)	50±5%(±10%)Bypass synchronization tracking																	
Rectifying Pulse Number	6 pulse rectification					6/12 pulse rectification						12 pulse rectifier						
Phase System	3φ4W +PE(Three phase five wire system)																	
Battery Voltage(VDC)	384												480					
Battery Quantity(Section)	Standard with 32(30~34, can be set through the LCD panel) Standard 40 knots (38~42 knots, can be set by LCD panel)																	
<b>Output</b>																		
Power Factor	0.9																	
Voltage(V)	L-N: 220±1% L-L: 380±1%																	
Voltage Regulation	<1%(online and battery mode) at 100% linear load,<2% allow 100% imbalance																	
Frequency(Hz)	Normal power, tracking the frequency of power, Frid abnormal.50±0.2%																	
Transfer Time(ms)	0																	
Recovery Time	Dynamic load voltage transient <5%, recovery within 5ms																	
Waveform Distortion	Linear load THD2%: Nonlinear load THD 5%																	
Overload Capacity	125% full load for 10 minutes, maintain 150% full load for 1 minute and then switch to bypass power supply, after reducing the load can automatically restore the inverter																	
Crest Factor	3:1																	
<b>System</b>																		
Efficiency (normal mode)	94% at 100% load, 92% at 50% load																	
Communication Function	Provides dry contract communication and RS232/RS485, Optional SNMP option to achieve intelligent monitoring of UPS																	
Panel Display	LED displays working status and fault indication: LCD displays three-phase input voltage, input frequency, output voltage, load, battery voltage, battery charge and discharge current, etc																	
Display	LCD 7' touch screen display																	
The Audio Noise(dB)	<65(within 1 meter)																	
Alarm Function	Battery low voltage, abnormal power supply, overload, UPS failure, over temperature protection																	
Protection	Input over voltage, battery under voltage, overload, short circuit, over temperature protection																	
Cooling Way	Forced cooling																	
Operating Temperature(°C)	-10~35 without de-rating																	
Humidity	0~95%, non-condensing																	
Max Altitude	Rated power at 1000m, (increase 100m and decrease by -1%), maximum 4000m																	
Size (W*D*H)(mm)	540*657*1132				555*725*1290			800*745*1700		800*850*1900		1204*850*1900			2600*1200*2000			
Net Weight(KG)	173	211	254	306	385	390	665	675	805	900	1080	1200	1300	1768	1972			
Gross Weight(KG)	196	233	276	329	415	419	724	730	863	973	1160	1275	1375	1880	2190			

STANDA D: Conform to GB/IEC regulation: EMC: CB7260. 2/IEC62040-2 -GB/17626.2~5/IEC61000-4-2~5 SAFETY: GB4943

Note: Product specifications are subject to change without further notice.

